



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,875	01/23/2004	Mark Horton	018360/269788	6010

826 7590 07/18/2007

ALSTON & BIRD LLP  
BANK OF AMERICA PLAZA  
101 SOUTH TRYON STREET, SUITE 4000  
CHARLOTTE, NC 28280-4000

EXAMINER
----------

EKONG, EMEM

ART UNIT	PAPER NUMBER
----------	--------------

2617

MAIL DATE	DELIVERY MODE
-----------	---------------

07/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/763,875	Applicant(s) HORTON ET AL.	
	Examiner EMEM EKONG	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/23/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                             |                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/8/06</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-6, 8-23, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,481,588 to Rickli et al. (Rickli) in view of U. S. Patent No. 6, 400,690 B1 to Liu et al. (Liu).

Regarding claims 1 and 18, Rickli discloses a method and a system of testing electromagnetic signal strength near a target area (col. 2 lines 17-20, testing of field strength in a particular cover area), comprising: establishing test parameters (col. 1 line 51-col. 2 line 2, col. 2 lines 17-19, col. 2 lines 40-59, and col. 5 lines 44-51, i.e. connection parameters, quality of service, position, and time), employing a service enterprise having a fleet of vehicles serving a territory near said target area (col. 2 lines 60-67), each of said vehicles assigned to one of a plurality of routes according to a dispatch plan (col. 2 lines 60-67, col. 3 lines 51-55, and col. 4 lines 60-66), said dispatch plan comprising vehicle data and route data (col. 3 lines 45-55, col. 4 lines 60-66, and col.5 lines 18-31, test unit 16 and route 20), installing one of a plurality of electromagnetic signal testing units in the vehicle routes (see abstract, and col. 2 line 61, test unit 16 mounted on vehicle), one or more of the vehicles being assigned to one of said optimal (col. 3 lines 45-55, col. 4 lines 60-66, and col.5 lines 18-31), and receiving data gathered by each of said plurality of signal testing units (col. 2 lines 25-29, and col. 3 lines 34-39). However, Rickli fails to disclose comparing said test parameters to said dispatch plan for each of said plurality of routes, identifying one or more optimal routes from among said plurality of routes based on the results of said

comparing, said optimal routes comprising those most nearly satisfying said test parameters, vehicle assigned to each of said one or more optimal routes.

In a similar endeavor, Liu discloses comparing said test parameters to said dispatch plan for each of said plurality of routes (col. 2 lines 6-23), identifying one or more optimal routes from among said plurality of routes based on the results of said comparing, said optimal routes comprising those most nearly satisfying said test parameters (col. 2 lines 25-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Rickli, by comparing said test parameters to said dispatch plan for each of said plurality of routes, identifying one or more optimal routes from among said plurality of routes based on the results of said comparing, said optimal routes comprising those most nearly satisfying said test parameters, vehicle assigned to each of said one or more optimal routes as disclosed by Liu for the purpose of using information from employed service enterprise for signal testing.

Regarding claims 2 and 19, the combination of Rickli and Liu discloses the method of claims 1 and 18, wherein the step of establishing test parameters further comprises storing a geographic parameter, and wherein said route data includes a start location, an end location, and one or more intermediate stop locations (col. 3 lines 25-45, and col. 3 line 63-col. 4 line 10).

Regarding claims 3-6, 8-10, 20-23, and 25-28, the combination of Rickli and Liu discloses wherein said step of storing a geographic parameter further comprises: storing one or more tower identifiers, each defining a tower location, and storing one or more sector identifiers, each of said one or more sector identifiers comprising a sector location and an antenna configuration (Rickli, see figure 1, and col. 3 lines 18-22);

wherein the step of establishing test parameters further comprises storing a time parameter describing a time window, and wherein said route data includes a start time corresponding to said start location, an end time corresponding to said end location, and one or more intermediate stop durations corresponding to said one or more intermediate stop locations; and storing one or more lingering parameters, each of said one or more lingering parameters comprising a linger duration, a tower identifier, and a sector identifier (col. 2 lines 44-59, col. 3 lines 23-33, col. 6 lines 1-5, and col. 7 lines 45-col. 8 line 5);

wherein said step of establishing test parameters further comprises: storing one or more unit parameters, each of said one or more unit parameters comprising a unit type and a unit feature, and storing a quantity parameter defining an available number of said units, and wherein said vehicle data includes a number of vehicles in said fleet (reads on claims 3-6, and 20-23) (col. 5 lines 22-30, 44-51, and col. 7 lines 48-55);

wherein said step of establishing test parameters further comprises: assigning a weight to one or more of said test parameters, each of said weights correlated to the importance of said one or more of said test parameters relative to the others (reads on claims 8 and 25) (col. 2 lines 44-48 and col. 4 lines 60-65, with the aid of at least one

test mobile remote unit).

**Regarding claim 11**, Rickli discloses a computer software program product (col. 3 line 24) for testing electromagnetic signal strength near a target area (col. 2 lines 17-20, and col. 6 lines 56-58, testing of field strength in a particular cover area), comprising: a first executable portion configured to store test parameters, a second executable portion configured to store a dispatch plan for a fleet of vehicles serving a territory near said target area, each of said vehicles assigned to one of a plurality of routes according to a dispatch plan, said dispatch plan comprising vehicle data and route data (col. 2 lines 64-67, 3 lines 24-36, and col. 7 lines 14-21, i.e. registering module test computer), a fourth executable portion configured to identify one or more optimal routes from among said plurality of routes based on the results of said third executable portion, said optimal routes comprising those most nearly satisfying said test parameters (col. 7 line 10, and 21-22, output unit), a fifth executable portion configured to identify the vehicle assigned to each of said one or more optimal routes, said vehicle to receive one of a plurality of electromagnetic signal testing units, a sixth executable portion configured to receive data gathered by each of said plurality of signal testing units (col. 1 lines 5-15, col. 1 line 41-col. 2 line 31, and col. 7 lines 11-15, test computer). However, Rickli fails to specifically disclose a third executable portion configured to compare said test parameters to said dispatch plan for each of said plurality of route.

In a similar endeavor, Liu discloses comparing said test parameters to said dispatch plan for each of said plurality of routes (col. 2 lines 6-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Rickli, by comparing said test parameters to said dispatch plan for each of said plurality of routes as disclosed by Liu for the purpose of determining best route.

**Regarding claims 12-17**, the combination of Rickli and Liu discloses a computer software program product of claim 11, wherein said first executable portion is further configured to store test parameters including a geographic parameter, and wherein said second executable portion is further configured to store route data including a start location, an end location, and one or more intermediate stop locations (Rickli, col. 2 lines 44-59, col. 3 lines 23-33, col. 6 lines 1-5, and col. 7 lines 45-col. 8 line 5);

wherein said first executable portion is further configured to store test parameters including a geographic parameter comprising: one or more tower identifiers, each defining a tower location, and one or more sector identifiers, each of said one or more sector identifiers comprising a sector location and an antenna configuration (Rickli, see figure 1, and col. 3 lines 18-22);

wherein said first executable portion is further configured to store test parameters including a time parameter describing a time window, and wherein said second executable portion is further configured to store route data including a start time corresponding to said start location, an end time corresponding to said end location,



and one or more intermediate stop durations corresponding to said one or more intermediate stop locations;

wherein said first executable portion is further configured to store test parameters including a time parameter comprising: one or more lingering parameters, each of said one or more lingering parameters comprising a linger duration, a tower identifier, and a sector identifier (Rickli, col. 2 lines 44-59, col. 3 lines 23-33, col. 6 lines 1-5, and col. 7 lines 45-col. 8 line 5);

wherein said first executable portion is further configured to store test parameters including: one or more unit parameters, each of said one or more unit parameters comprising a unit type and a unit feature, and a quantity parameter defining an available number of said units, and wherein said second executable portion is further configured to store vehicle data including a number of vehicles in said fleet (Rickli, col. 5 lines 22-30, 44-51, and col. 7 lines 48-55); wherein said first executable portion is further configured to store a weight assigned to one or more of said test parameters, each of said weights correlated to the importance of said one or more of said test parameters relative to the others (Rickli, col. 2 lines 44-48 and col. 4 lines 60-65, with the aid of at least one test mobile remote unit).

6. Claims 7 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rickli in view of Liu, and further in view of U. S. Patent No. 5752164 to Jones.

**Regarding claim 7 and 24**, the combination of Rickli, and Liu discloses the method and system of claims 1 and 18, however, the combination fails to disclose

Art Unit: 2617

wherein said step of installing further comprises providing a universal bracket in each vehicle in said fleet, said bracket configured to releasably receive any of a variety of types of said testing units.

Jones discloses a universal bracket in each vehicle in said fleet, said bracket configured to releasably receive any of a variety of types of said testing units (col. 7 lines 26-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination, by providing a universal bracket in each vehicle in said fleet, said bracket configured to releasably receive any of a variety of types of said testing units as disclosed by Jones for the purpose of attaching the testing unit to be used in a car.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMEM EKONG whose telephone number is 571 272 8129. The examiner can normally be reached on 8-5 Mon-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571 272 7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EOE

06/26/07



LESTER G. KINCAID  
SUPERVISORY PRIMARY EXAMINER